

**IN THE CLAIMS:**

- 1 1. (Previously presented) A load balancing system for distributing tasks to a processor
- 2 resource of a processor pool, the system comprising:
  - 3 a memory with a region organized into at least one memory block, each memory
  - 4 block configured to store a session;
  - 5 an interface for coupling the memory to the processor resource, whereby the
  - 6 processor resource accesses the at least one memory block to update information associ-
  - 7 ated with the session;
  - 8 an access monitor coupled to the interface, wherein the access monitor recognizes
  - 9 and tracks memory cycles associated with the at least one memory block during a speci-
  - 10 fied period of time and collects statistics associated with the session; and
  - 11 a central resource coupled to the access monitor, the central resource arranged to
  - 12 receive the statistics from the access monitor, and, in response thereto, to assign tasks to
  - 13 the processor resource.
- 1 2. (Original) The load balancing system as defined in claim 1 further comprising logic
- 2 for recognizing a new session and designating a memory block for that session.
- 1 3. (Previously presented) The load balancing system as defined in claim 1 wherein the
- 2 access monitor comprises:
  - 3 memory address logic that recognizes address fields defining the at least one
  - 4 memory block;

5           memory control logic that recognizes memory cycles being executed on the at  
6    least one memory block; and

7           a session table with activity information entries associated with each session.

1    4. (Original) The load balancing system as defined in claim 1 wherein the access moni-  
2    tor is embodied as an application specific integrated circuit.

1    5. (Original) The load balancing system as defined in claim 3 wherein, when the speci-  
2    fied period of time elapses, the session table is cleared.

1    6. (Previously presented) A load balancing system for distributing tasks to a processor  
2    resource of a processor pool, the system comprising:

3           means for storing information into at least one block, each block configured to  
4    store a session;

5           means for coupling the at least one block to the processor resource, whereby the  
6    processor resource access the at least one memory block to update information associated  
7    with the session;

8           means for monitoring information transfers on the interface, wherein the means  
9    for monitoring recognizes and tracks memory cycles associated with the at least one  
10   memory block during a specified period of time and collects statistics associated with the  
11   session; and

12          means for assigning tasks coupled to the means for monitoring to receive the sta-  
13    tistics therefrom, and in response thereto, to assign tasks to the processor resource.

1     7. (Original) The load balancing system as defined in claim 6 further comprising means  
2     for recognizing a new session and designating a memory block for that session.

1     8. (Previously presented) The load balancing system as defined in claim 6 wherein the  
2     means for monitoring information further comprises:

3                 means for recognizing memory address fields defining the at least one memory  
4     block;

5                 means for recognizing memory cycles being executed on the at least one memory  
6     block; and

7                 means for storing activity information entries associated with each session.

1     9. (Original) The load balancing system as defined in claim 8 wherein, when the speci-  
2     fied period of time elapses, the session table is cleared.

1     10. (Previously presented) A load balancing method for distributing tasks to a processor  
2     resource of a processor pool, the method comprising the steps of:

3                 storing information into memory with a region organized into at least one mem-  
4     ory block, each memory block configured to store a session;

5                 coupling the memory to the processor resource, whereby the processor resource  
6     accesses the at least one memory block to update information associated with the session;

7 monitoring information transfers between the at least one memory block and the  
8 processor resource, wherein the step of monitoring further comprises recognizing and  
9 tracking memory cycles associated with the at least one memory block during a specified  
10 period of time and collecting statistics associated with the session; and

11 receiving the statistics, and, in response thereto, assigning tasks to the processor  
12 resource.

1 11. (Original) The load balancing method as defined in claim 10 further comprising the  
2 steps of recognizing a new session and designating a memory block for that session.

1 12. (Previously presented) The load balancing method as defined in claim 10 wherein  
2 the step of monitoring information transfers comprises the steps of:

3 recognizing memory address fields defining the at least one memory block;  
4 recognizing memory cycles being executed on the at least one memory block; and  
5 storing activity information entries associated with each session in a session table.

1 13. (Previously presented) The load balancing method as defined in claim 12 wherein,  
2 when the time period has elapsed, the session table is cleared.

1 14. (Previously presented) Computer readable memory comprising computer executable  
2 program instructions for load balancing distribution of tasks to a processor resource of a  
3 processor pool, the instructions, when executed, causes:

4           storing information into memory with a region organized into at least one memory block, each memory block configured to store a session,

6           coupling the memory to the processor resource, whereby the processor resource  
7    accesses the at least one memory block to update information associated with the session,

8           monitoring information transfers between the at least one memory block and the  
9    processor resource, wherein the monitoring recognizes and tracks memory associated  
10   with the at least one memory block during a specified period of time and collects statistics  
11   associated with the session; and

12          receiving the statistics, and, in response thereto, assigning tasks to the processor  
13    resource.

1    15. (Original) Computer readable memory as defined in claim 14, the computer program  
2    when executed also causes recognizing of a new session and designating a memory block  
3    for that session.

1    16. (Previously presented) Computer readable memory as defined in claim 14, the computer program when executed also causes:  
3          recognizing memory address fields defining the at least one memory block;  
4          recognizing memory cycles being executed on the at least one memory block; and  
5          storing activity information entries associated with each session in a session table.

1       17. (Previously presented) Computer readable memory as defined in claim 16, the com-  
2       puter program when executed also causes, when the time period has elapsed, the session  
3       table to be cleared.

1       18. (Previously presented) A load balancing system for distributing tasks to a plurality  
2       of processors of a processor pool, the system comprising:

3               a plurality of memories, each memory associated with a processor of the plurality  
4       of processors, each memory organized into a plurality of memory blocks, each memory  
5       block configured to store a session;

6               a plurality of interfaces, each interface coupling one of the memories to one of the  
7       processors, whereby the processors accesses memory blocks over the interfaces to update  
8       information associated with the sessions;

9               an access monitor coupled to the interfaces, wherein the access monitor recog-  
10       nizes accesses to the memory blocks to thereby collects statistics associated with the ses-  
11       sions; and

12               a central resource coupled to the access monitor, the central resource arranged to  
13       receive the statistics from the access monitor, and, in response thereto, to assign tasks to  
14       the processors.

1       19. (Previously presented) A load balancing method for distributing tasks a plurality of  
2       processors of a processor pool, the system comprising:

3               storing information related to sessions into a plurality of memories, each memory  
4       arranged into a plurality of memory blocks, each memory block associated with a ses-  
5       sion;

6           coupling the memories to the processors with a plurality of interfaces, each inter-  
7   face interconnecting a processor to a memory associated with the processor;  
  
8           monitoring information transferred over the plurality of interfaces, wherein the  
9   step of monitoring further includes recognizing memory accesses associated with mem-  
10   ory blocks to thereby collect statistics associated with the sessions; and  
  
11          receiving the statistics, and, in response thereto, assigning tasks to the processors.

1   20. (Previously presented) A load balancing method for distributing tasks a plurality of  
2   processors of a processor pool, the system comprising:  
  
3          means for storing information related to sessions into a plurality of blocks, each  
4   block associated with a session;  
  
5          means for coupling the blocks to the processors, each means for coupling inter-  
6   connecting a processor to a one or more blocks associated with the processor;  
  
7          means for monitoring information transferred over the means for coupling, the  
8   means for monitoring recognizing block accesses associated with blocks to thereby col-  
9   lect statistics associated with the sessions; and  
  
10         means for receiving the statistics, and, in response thereto, assigning tasks to the  
11   processors.